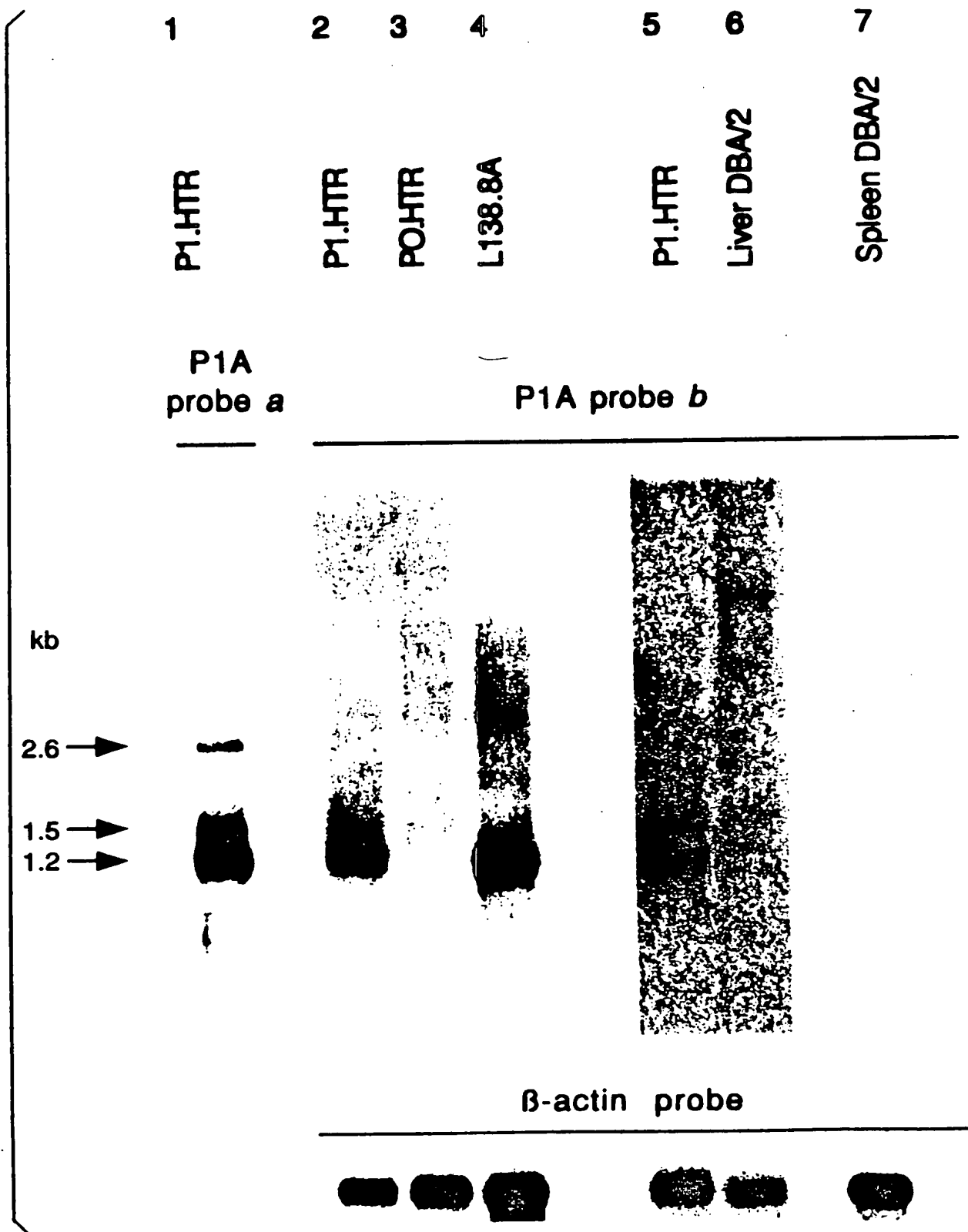


FIG. 4



Leu-Pro-Tyr-Leu-Gly-Trp-Leu

Figure 10

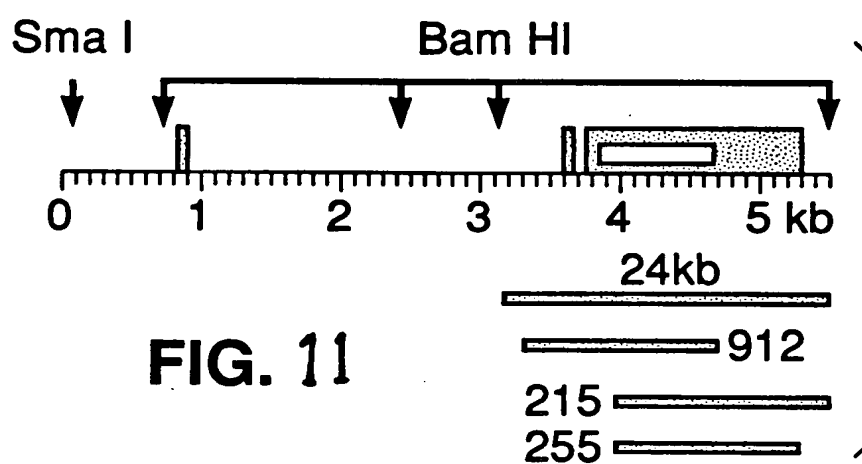


FIG. 12

IMAGE-3 /// CCTCCCCAGAGTCCTCAGGGAGCCTCCagCCTcCCCACTACCATgAACTaCCTCtctgAGgCCAAtCCTaTGAGGacTCCAGCAaCCaaGAAGAGGAGG CHO-3
 IMAGE-2 // CCTCCCCACAGTCCTCAGGGAGCCTCCagCTTctGgACTACCATCAACTaCACTctttgAGaCAAtCCgATGAGGgCTCCAGCAaCCaaGAAGAGGAGG CHO-2
 IMAGE-1 / CCTCCCCAGAGTCCTCAGGGAGCCTCCgCCtTTCcCACTACCATCAACTCACTCGACAGAGGCAACCCAGTgAGGgTTCcAGcAGCCCTGTAAGAGGAGG 225 CHO-6
 /// GGGCAAGCACCTtcccTgaCC-TGGAGTCCgaGTTCcAGCAGcAcTCAgTAgAAGGTGGCCGAgTTGGTTcaTTTTCTGCTCCTCAAgTATCGAGCCCA
 // GGGCAAGaAtgtTcccgaCCtTGGAGTCCGAGTTCCaAGCAGCAATCAgTAGAAAGTGGTGGTTCaTTTTCTGCTCCTCAAgTATCGAGCCCA
 / GGCCaAGcACCTCTGTATCC-TGGAGTCCtTGTTCcGAGcAGTAATCACTaAGAGGTGGCTGATTTGGTTGGTTTCTGCTCCTCAAAATATCGAGCCCA 325
 /// GGGAGCCgGTCAHAAGCAGAAATGCTGGgGAGTGTCTggaATTgGCAGtAtTtCTTCTCTGTgATCTTCaGCAAAAGCTTCCagTTCCTTGcAGCT
 // GGGAGCCgGTCAHAAGCAGAAATGCTGGAGAGTGTCTCAgAAATTgCCAGgACTtCTTTCCCGtGATCTTCaGCAAAAGCTTCCAGTACTTGcAGCT
 / GGGAGCCgGTCAHAAGCAGAAATGCTGGAGAGTGTCTCAHAATTAACAGcACTGTtTCTGAGATCTTCCGCAAAAGCTCTGAGTCTTCTGAGCT 425 SEQ-4
 /// GGTCTTTGGCATcGAgCTGATGGAAgTgGACCCCACTtGTAcATCTTTGcCACCTGCCCTgGGcCTCTCCTAcGATGGCCCTGCTGGGTGACAAT
 // GGTCTTTGGCATcGAgCTGgTGGAAgTgGtCCCCATcAGCCACTtGTAcATCTCTGTGTACCTGCCCTgGGcCTCTCCTAcGATGGCCCTGCTGGGCGACAAT
 / GGTCTTTGGCATtGACGTGHAAGHAAGcAGACCCCAcCGGCCACTCTCTATGTCTGTGTACCTGCCCTAGGTCTCTCTATGATGGCCCTGCTGGGTGATAAT 525
 /// CAGATCATGCCCCAAGgCAGGCCCTCTCTGATAATCTGCTCTGGCCATATcGCAAGaGAGGGCGaCtGTGCCCTTGAGGAGaAAATCTGGGAGGAGGCTGAGTG
 // CAGgTCATGCCCCAAGcAGCAGGCCCTCTCTGATAATCTGTC-TGGCCATATcGCAATaGAGGGCGaCtGTGCCCTTGAGGAGaAAATCTGGGAGGAGGCTGAGTa
 / CAGATCATGCCCCAAGcAGGCTTCTGTATAATTGTCTCTGTGATGATTTGCAATGGAGGGCGCCATGTCTCTTGAGGAGGAAATCTGGGAGGAGGCTGAGTG 625 CHO-9

β -action

MAGE

PROBES

FIG. 13

MZ2-MEL.3.0
MZ2-MEL 1982
MZ2-MEL.2.2 E-
MZ2-PBL-PHA
Lung
Kidney

MZ2-MEL 3.0
MZ2-CTL 82/30
LB34-MEL
LB17-MEL
MI665/2-MEL
LB41-MEL
MI10221-MEL
MI13443-MEL
SK23-MEL
SK33-MEL

Other
melanomas

LB4-MEL
MI4024-MEL
MZ3-MEL
MZ5-MEL
SK29-MEL
LB31-COL
LS411-COL

Other
tumors

H209-SCLC
H345-SCLC
H510-SCLC
TT

FIG. 14

Expression of
antigen MZ2-E
after transfection**

		EXPRESSION OF MAGE GENE FAMILY				RECOGNITION BY ANI-E CTL		
		Northern blot probed with cross-reactive MAGE-1 probe*	cDNA-PCR product probed with oligonucleotide specific for:			tested by:		
			MAGE-1	MAGE-2	MAGE-3†	TNF release‡	Lysis§	
Cells of patient MZ2	melanoma cell line MZ2-MEL3.0	+	++++	++++	++++	+	+	
	tumor sample MZ2 (1982)	+	+++	+++	+++			
	antigen-loss variant MZ2-MEL2.2	+	-	+++	+++	-	-	
	CTL clone MZ2-CTL82/30	-	-	-	-			
	PHA-activated blood lymphocytes	-	-	-	-			
Normal tissues	Liver	-	-	-	-			
	Muscle	-	-	-	-			
	Skin	-	-	-	-			
	Lung	-	-	-	-			
	Brain	-	-	-	-			
	Kidney	-	-	-	-			
Melanoma cell lines of HLA-A1 patients	LB34-MEL	+	++	++++	++++	+	+-	
	MI6652-MEL	-	-	-	-	-	-	+
	MI10221-MEL	+	-	++	+++	-	-	+
	MI13443-MEL	+	+++	++++	++++	+	+	
	SK33-MEL	+	-	++++	++++	-	-	-
	SK23-MEL	+	-	++++	++++	-	-	+
Melanoma cell lines of other patients	LB17-MEL	+	+	++++	++++	-	-	-
	LB33-MEL	+	-	+++	+++	-	-	-
	LB4-MEL	-	-	-	-	-	-	
	LB41-MEL	-	-	-	-	-	-	
	MI4024-MEL	+	+++	++++	++++	-	-	
	SK29-MEL	-	-	-	-	-	-	
	MZ3-MEL	+	+	++++	++++	-	-	
	MZ5-MEL	+	-	++++	++++	-	-	
Melanoma tumor sample	BB5-MEL	+	+++	++	+++			
Other tumor cell lines	small cell lung cancer H209	+	-	++++	++++			
	small cell lung cancer H345	+	-	++++	++++			
	small cell lung cancer H510	+	-	++++	++++			
	small cell lung cancer LB11	+	+	++++	++++			
	bronchial squamous cell carcinoma LB37	+	-	-	+++			
	thyroid medullary carcinoma TT	+	++++	+++	++++			
	colon carcinoma LB31	+	-	+++	++++	-		
colon carcinoma LS411	-	-	-	-				
Other tumor samples	chronic myeloid leukemia LLC5	-	-	-	-			
	acute myeloid leukemia TA	-	-	-	-			

* Data obtained in the conditions of figure 5.

† Data obtained as described in figure 6.

‡ TNF release by CTL 82/30 after stimulation with the tumor cells as described in (11).

§ Lysis of 51 Cr labelled target by CTL 82/30 in the conditions of figure 1.

** Cells transfected with the 2.4 kb fragment of gene MAGE-1 were tested for their ability to stimulate TNF release by CTL 82/30

FIG. 15

